

**UNCLASSIFIED**  
**EXHIBIT R-2, FY 2000 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET**

**DATE: February 1999**

**BUDGET ACTIVITY: 7**

**PROGRAM ELEMENT: 0305206N**

**PROGRAM ELEMENT TITLE: Airborne Reconnaissance Advanced Development (ARAD)**

**(U) COST: (Dollars in Thousands)**

| <b><u>Project Number &amp; Title</u></b> | <b><u>FY 1998<br/>Budget</u></b> | <b><u>FY 1999<br/>Budget</u></b> | <b><u>FY 2000<br/>Estimate</u></b> | <b><u>FY 2001<br/>Estimate</u></b> | <b><u>FY 2002<br/>Estimate</u></b> | <b><u>FY 2003<br/>Estimate</u></b> | <b><u>FY 2004<br/>Estimate</u></b> | <b><u>FY 2005<br/>Estimate</u></b> | <b><u>To<br/>Complete</u></b> | <b><u>Total<br/>Program</u></b> |
|--|----------------------------------|----------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------|---------------------------------|
| H2694 Advanced Digital Sensors           | 9,802*                           | 3,048                            | 2,986                              | 6,921                              | 7,920                              | 8,848                              | 18,165                             | 22,994                             | CONT                          | CONT                            |
| R2476 Framing Reconnaissance Camera      | 9,278*                           | 13,363                           | 1,972                              | 1,968                              | 0                                  | 2,949                              | 0                                  | 0                                  | CONT                          | CONT                            |
| <b>TOTAL</b>                             | <b>19,080*</b>                   | <b>16,411**</b>                  | <b>4,958</b>                       | <b>8,889</b>                       | <b>7,920</b>                       | <b>11,797</b>                      | <b>18,165</b>                      | <b>22,994</b>                      | <b>CONT</b>                   | <b>CONT</b>                     |

Quantity of RDT&E Articles

\*Previously executed under Defense Airborne Reconnaissance Office (DARO) PE 0305206D8Z.

\*\*FY 1999 funds executed under NAVAIR Project Unit H2675, ONR Project Unit R2676 and an ONR Project Unit yet to be determined for Framing Reconnaissance Camera effort. \$7,982 is to be executed through ONR and \$5,381 is to be executed through DARO

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program funds and coordinates the development of advanced defense airborne reconnaissance technologies to ensure systems satisfy strategies and architectures to assure U.S. ability to support warfighter intelligence needs in the face of rapidly developing threat technology, proliferation of advanced weaponry, and uncertain political alignments. This program funds the development of the technologies that respond to evolving threats by emphasizing multi-service utility, interoperability among existing and planned complementary systems (i.e., sensors, ground systems, data links, and manned and unmanned platforms), and timely dissemination of intelligence information to operational forces. It also funds the architecture and master planning activities that will provide the overall guidance for airborne reconnaissance Signals Intelligence and Imagery Intelligence, and manned/unmanned airborne reconnaissance systems.

(U) JUSTIFICATION OF BUDGET ACTIVITY: This program is categorized as Budget Activity 7 because it provides for the development of technologies and capabilities in support of Operational Systems Development.

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**EXHIBIT R-2a, FY 2000 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET**

**DATE: February 1999**

**BUDGET ACTIVITY: 7**

**PROGRAM ELEMENT: 0305206N**

**PROGRAM ELEMENT TITLE: Airborne Reconnaissance Advanced Development (ARAD)**

**(U) COST: (Dollars in Thousands)**

| <u>Project Number &amp; Title</u>     | <u>FY 1998<br/>Budget</u> | <u>FY 1999<br/>Budget</u> | <u>FY 2000<br/>Estimate</u> | <u>FY 2001<br/>Estimate</u> | <u>FY 2002<br/>Estimate</u> | <u>FY 2003<br/>Estimate</u> | <u>FY 2004<br/>Estimate</u> | <u>FY 2005<br/>Estimate</u> | <u>To<br/>Complete</u> | <u>Total<br/>Program</u> |
|---------------------------------------|---------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------|--------------------------|
| <b>H2694</b> Advanced Digital Sensors | 0*                        | 3,048                     | 2,986                       | 6,921                       | 7,920                       | 8,848                       | 18,165                      | 22,994                      | CONT                   | CONT                     |

Quantity of RDT&E Articles

\*Previously executed under Defense Airborne Reconnaissance Office (DARO).  
FY 1999 funds executed under NAVAIR Project Unit H2675.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Provides funds for the development of sensor systems to improve present airborne reconnaissance capabilities. The developments are driven by evolving collection requirements and modern technology advances. The developments allow for the necessary changes required to meet an integrated, objective airborne reconnaissance architecture as defined in the Integrated Airborne Reconnaissance Strategy (IARS) and amplified in the Airborne Reconnaissance Information Technical Architecture (ARITA). The advanced sensor program includes technical analyses, systems engineering assessments, planning, and development for advanced airborne sensor systems. This effort focuses on developments which support sensor system interoperability and standardization of multi-Service and multi-platform applications. The advanced sensor developments will provide the technology transition modules for operational use necessary for the overall migration of the airborne fleet (manned and unmanned) to a Joint Airborne SIGINT Architecture (JASA) (i.e., sensors, ground systems, data links, and platforms), and provide the mechanism required for timely dissemination of intelligence information to operational forces. The development and modification of the lead integration aircraft (EP-3E) for the initial JASA modules will provide a mechanism to begin development and operational assessment of the Joint SIGINT Avionics Family (JSAF) components.

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**BUDGET ACTIVITY: 7**

**PROGRAM ELEMENT: 0305206N**

**PROJECT NUMBER: H2694**

**PROGRAM ELEMENT TITLE: Airborne Reconnaissance  
Advanced Development (ARAD)**

**PROJECT TITLE: Advanced Digital Sensors**

**(U) PROGRAM ACCOMPLISHMENTS AND PLANS:**

**1. FY 1998 ACCOMPLISHMENTS:**

(U) Previously executed under Defense Airborne Reconnaissance Office (DARO) PE 0305206D8Z.

**2. FY 1999 PLAN:**

(U) (\$2,973) Continue Story Series Development

- Complete joint Phase III Common Processor Core (CPC) development
- Procure Story Book software integration lab/aircraft Tadpole replacement cards
- Complete Story Finder software development
- Complete Story Finder development unit
- Begin requirements analysis for fusion integration
- Continue Fusion Engine Software development

(U) (\$ 75) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

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**BUDGET ACTIVITY: 7**

**PROGRAM ELEMENT: 0305206N**

**PROJECT NUMBER: H2694**

**PROGRAM ELEMENT TITLE: Airborne Reconnaissance  
Advanced Development (ARAD)**

**PROJECT TITLE: Advanced Digital Sensors**

**3. FY 2000 PLAN:**

(U) (\$2,986) Continue Story Series Development

- Begin joint Common Processor Core (CPC) Phase IV Development
- Begin Story Finder Precision Direction Finding (DF) Array engineering development
- Complete requirements analysis for fusion integration
- Continue Fusion Engine Software development
- Begin Story Finder Integration within EP-3E aircraft
- Begin production of Story Finder Development Unit

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**BUDGET ACTIVITY: 7**

**PROGRAM ELEMENT: 0305206N**

**PROJECT NUMBER: H2694**

**PROGRAM ELEMENT TITLE: Airborne Reconnaissance  
Advanced Development (ARAD)**

**PROJECT TITLE: Advanced Digital Sensors**

**(U) B. PROGRAM CHANGE SUMMARY**

|  | <u>FY 1998</u> | <u>FY 1999</u> | <u>FY 2000</u> |
|--|----------------|----------------|----------------|
| (U) FY 1999 President's Budget:        | 0*             | 0              | 0              |
| (U) Appropriated Value:                | 0*             | 3,055          | 0              |
| (U) Adjustments from Pres Budget:      | 0*             | 3,048          | 2,986          |
| (U) FY 2000 President's Budget Submit: | 0*             | 3,048          | 2,986          |

\*Previously executed under Defense Airborne Reconnaissance Office (DARO) PE 0305206D8Z.  
FY 1999 funds executed under NAVAIR Project Unit H2675.

**CHANGE SUMMARY EXPLANATION:**

(U) Funding: The net increase of \$3,048 in FY 1999 reflects a DARO transfer of \$3,055 thousand from PE 0305206D8Z and a Revised Economic Assumption adjustment of -\$7 thousand. The net increase of \$2,986 thousand in FY 2000 reflects a DARO transfer of \$3,000 thousand from PE 0305206D8Z and a Non Pay Inflation/Correction adjustment of -\$14 thousand.

(U) Schedule: Not Applicable.

(U) Technical: Not Applicable

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BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305206N

PROJECT NUMBER: H2694

PROGRAM ELEMENT TITLE: Airborne Reconnaissance  
Advanced Development (ARAD)

PROJECT TITLE: Advanced Digital Sensors

(U) C. OTHER PROGRAM FUNDING SUMMARY

| <u>APPN</u>           | <u>FY 1998<br/>Budget</u> | <u>FY 1999<br/>Budget</u> | <u>FY 2000<br/>Estimate</u> | <u>FY 2001<br/>Estimate</u> | <u>FY 2002<br/>Estimate</u> | <u>FY 2003<br/>Estimate</u> | <u>FY 2004<br/>Estimate</u> | <u>FY 2005<br/>Estimate</u> | <u>To<br/>Complete</u> |
|-----------------------|---------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------|
| APN5 EP-3E OSIP 01-01 |                           |                           |                             | 25,649                      | 27,810                      | 34,618                      | 35,032                      | 36,946                      | 200,077                |

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**PROGRAM ELEMENT: 0305206N**

**PROJECT NUMBER: H2694**

**PROGRAM ELEMENT TITLE: Airborne Reconnaissance  
Advanced Development (ARAD)**

**PROJECT TITLE: Advanced Digital Sensors**

Related RDT&E (Not applicable)

(U) D. ACQUISITION STRATEGY: Leverages/complements Air Force , Naval Research Laboratory, Office of Naval Research RDT&E efforts for technology insertions into EP-3E/ES-3/VPU productions programs.

(U) E. SCHEDULE PROFILE

|                            | <u>FY 1998</u> | <u>FY 1999</u>   | <u>FY 2000</u> | <u>TO COMPLETE</u>                            |
|----------------------------|----------------|--|----------------|---|
| (U) Program Milestones     |                |  |                | 2Q01/MSIII for<br>StoryBook &<br>Story Finder |
| (U) Engineering Milestones |                | 2Q/Story Finder<br>Review<br>4Q/Story Book<br>CPC Review |                | 1Q01/Begin<br>megapixel<br>microsensor dev    |
| (U) T&E Milestones         |                |  | 2Q/DT/OA       | 3Q01/DT/OT                                    |
| (U) Contract Milestones    |                |  |                |   |

FY98 Efforts accomplished under DARO PE 0305206D8Z

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## EXHIBIT R-3, FY 2000 RDT&E,N COST ANALYSIS

DATE: February 1999

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305206N

PROJECT NUMBER: H2694

PROJECT TITLE: Advanced Digital Sensors

| <u>Cost Categories:</u>             | <u>Contract Method &amp; Type</u> | <u>Performing Activity &amp; Location</u> | <u>Total Prior Yrs Cost</u> | <u>FY 1999 Cost</u> | <u>FY 1999 Award Date</u> | <u>FY 2000 Cost</u> | <u>FY 2000 Award Date</u> | <u>Cost to Complete</u> | <u>Total Cost</u> | <u>Target Value of Contract</u> |
|-------------------------------------|-----------------------------------|---|-----------------------------|---------------------|---------------------------|---------------------|---------------------------|-------------------------|-------------------|---------------------------------|
| Story Finder                        | CPFF                              | BTG, Vienna, VA;<br>Sub-Melborne, FL      |                             | 1050                | 1Q/99                     | 900                 | 1Q/00                     | CONT                    | CONT              | CONT                            |
| CPC Development                     | CPFF                              | Raytheon, Greenville                      |                             | 856                 | 1Q/99                     | 650                 | 1Q/00                     | CONT                    | CONT              | CONT                            |
| Fusion Software Development         |                                   | Various                                   |                             | 245                 | 1Q/99                     | 325                 | 1Q/00                     | CONT                    | CONT              | CONT                            |
| Production Engineering (NRL)        | Various                           | NRL                                       |                             |                     |                           |                     |                           | CONT                    | CONT              | CONT                            |
| <b>Subtotal Product Development</b> |                                   |   |                             | <b>2,151</b>        |                           | <b>1,875</b>        |                           | <b>CONT</b>             | <b>CONT</b>       | <b>CONT</b>                     |
| <b>Remarks:</b>                     |                                   |   |                             |                     |                           |                     |                           |                         |                   |                                 |
| System Engineering                  | WX                                | NAWC AD, Pax River, MD                    |                             | 247                 | 1Q/99                     | 316                 | 1Q/00                     | CONT                    | CONT              | CONT                            |
| System Engineering                  | CPFF                              | VARIOUS                                   |                             | 275                 | 1Q/99                     | 292                 | 1Q/00                     |                         |                   |                                 |
| Systems Engineering                 | WX                                | NAWC WD, China Lake, CA                   |                             | 0                   |                           | 145                 |                           |                         |                   |                                 |
| <b>Subtotal Support</b>             |                                   |   |                             | <b>522</b>          |                           | <b>753</b>          |                           | <b>CONT</b>             | <b>CONT</b>       | <b>CONT</b>                     |
| <b>Remarks:</b>                     |                                   |   |                             |                     |                           |                     |                           |                         |                   |                                 |

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DATE: February 1999

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305206N

PROJECT NUMBER: H2694

PROJECT TITLE: Advanced Digital Sensors

| Cost Categories:                             | Contract<br>Method<br>& Type | Performing<br>Activity &<br>Location | Total<br>Prior Yrs<br>Cost | FY 1999<br>Cost | FY 1999<br>Award<br>Date | FY 2000<br>Cost | FY 2000<br>Award<br>Date | Cost to<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
|--|------------------------------|--------------------------------------|----------------------------|-----------------|--------------------------|-----------------|--------------------------|---------------------|---------------|--------------------------------|
| Test and Evaluation                          | WX                           | NAWC AD,<br>Pax River, MD            |                            |                 |                          | 50              | 1Q/00                    |                     |               |                                |
| Subtotal Test & Evaluation                   |                              |                                      |                            |                 |                          | 50              |                          | CONT                | CONT          | CONT                           |
| Remarks:                                     |                              |                                      |                            |                 |                          |                 |                          |                     |               |                                |
| Technical Support                            | CPFF                         | China Lake,<br>CA                    |                            | 300             | 1Q/99                    | 308             | 1Q/00                    | CONT                | CONT          | CONT                           |
| Subtotal Management                          |                              |                                      | 0                          | 300             |                          | 308             |                          | CONT                | CONT          | CONT                           |
| Remarks:                                     |                              |                                      |                            |                 |                          |                 |                          |                     |               |                                |
| FY 1999 SBIR Assessment                      |                              |                                      |                            | 75              |                          |                 |                          |                     | 75            |                                |
| Total Cost                                   |                              |                                      | 0*                         | 3,048           |                          | 2,986           |                          | CONT                | CONT          | CONT                           |
| * PY funds executed under DARO PE#0305206D8Z |                              |                                      |                            |                 |                          |                 |                          |                     |               |                                |

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**EXHIBIT R-2a, FY 2000 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET**

**DATE: February 1999**

**BUDGET ACTIVITY: 7**

**PROGRAM ELEMENT: 0305206N**

**PROJECT NUMBER: R2476**

**PROGRAM ELEMENT TITLE: Airborne Reconnaissance  
Advanced Development (ARAD)**

**PROJECT TITLE: Framing Reconnaissance  
Camera**

**(U) COST: (Dollars in Thousands)**

| <b><u>Project Number &amp; Title</u></b> | <b><u>FY 1998<br/>Budget</u></b> | <b><u>FY 1999<br/>Budget</u></b> | <b><u>FY 2000<br/>Estimate</u></b> | <b><u>FY 2001<br/>Estimate</u></b> | <b><u>FY 2002<br/>Estimate</u></b> | <b><u>FY 2003<br/>Estimate</u></b> | <b><u>FY 2004<br/>Estimate</u></b> | <b><u>FY 2005<br/>Estimate</u></b> | <b><u>To<br/>Complete</u></b> | <b><u>Total<br/>Program</u></b> |
|--|----------------------------------|----------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------|---------------------------------|
| R2476 Framing Reconnaissance Camera      | 9,278*                           | 13,363                           | 1,972                              | 1,968                              | 0                                  | 2,949                              | 0                                  | 0                                  | CONT                          | CONT                            |
| <b>TOTAL</b>                             | <b>9,278*</b>                    | <b>13,363</b>                    | <b>1,972</b>                       | <b>1,968</b>                       | <b>0</b>                           | <b>2,949</b>                       | <b>0</b>                           | <b>0</b>                           | <b>CONT</b>                   | <b>CONT</b>                     |

Quantity of RDT&E Articles

\*Previously executed under Defense Airborne Reconnaissance Office (DARO) PE 0305206D8Z.  
FY 1999 funds executed under ONR Project Unit R2676 (Electro Optical Congressional Add).

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: There are two primary objectives for the Advanced Technology funding: (1) to evaluate the utility and maturity of technology for airborne reconnaissance applications; and (2) to reduce the risk of employing emerging technologies in system upgrades, new system acquisitions, or Advanced Concept Technology Demonstrations (ACTDs), by integrating and exercising them in developmental and operational tests. These technologies help satisfy the requirements of the objective architecture set forth in the Integrated Airborne Reconnaissance Strategy (IARS). These technology investments are also identified in the Airborne Reconnaissance Technology Program Plan (ARTPP), published in November 1994. They were carefully selected from a broad range of technologies to provide utility to the warfighter at acceptable levels of cost and risk. This project continues technology transition programs in the critical areas identified in the ARTPP. This program leverages the commercial base at every opportunity while investing in carefully selected DoD-unique areas. Additionally, it defines near-term demonstrations in specific areas, followed by ones in which the most promising technology is chosen from a pool of possibilities currently under investigation within government and commercial sectors.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 1998 ACCOMPLISHMENTS:

- (U) (\$3,000) Developed, tested and flown IR framing camera with FMC.
- (U) (\$5,000) Developed, tested and flown 100 Megapixel EO camera.
- (U) (\$1,000) Developed improved image data compression boards and initiated contract for next generation compression boards.
- (U) (\$ 278) Test flew fastest compression boards to date.

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**BUDGET ACTIVITY: 7**

**PROGRAM ELEMENT: 0305206N**

**PROJECT NUMBER: R2476**

**PROGRAM ELEMENT TITLE: Airborne Reconnaissance  
Advanced Development (ARAD)**

**PROJECT TITLE: Framing Reconnaissance  
Camera**

**2. FY 1999 PLAN:**

- (U) (\$ 2,300) Continue development of 25-Megapixel/second IR framing camera.
- (U) (\$ 2,948) Begin multi-spectral medium altitude sensor development and transition MSI algorithms.
- (U) (\$ 7,785) Begin Electro-Optical development.
- (U) (\$ 330) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

**3. FY 2000 PLAN:**

- (U) (\$ 1,400) Continue multi-spectral medium altitude sensor development and development of IR framing camera.
- (U) (\$ 572) Develop and test precision strike capable camera.

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**PROGRAM ELEMENT: 0305206N**

**PROJECT NUMBER: R2476**

**PROGRAM ELEMENT TITLE: Airborne Reconnaissance  
Advanced Development (ARAD)**

**PROJECT TITLE: Framing Reconnaissance  
Camera**

**(U) B. PROGRAM CHANGE SUMMARY**

|   | <u>FY 1998</u> | <u>FY 1999</u> | <u>FY 2000</u> |
|---|----------------|----------------|----------------|
| (U) FY 1999 President's Budget:             | 0*             | 0              | 0              |
| (U) Appropriated Value:                     | 0*             | 13,393**       | 0              |
| (U) Adjustments from Pres Budget:           | 9,278*         | 13,363**       | 1,972          |
| (U) FY 2000/2001 President's Budget Submit: | 9,728*         | 13,363**       | 1,972          |

\* Previously executed under Defense Airborne Reconnaissance Office (DARO) PE 0305206D8Z.

\*\* \$7,982 FY 1999 funds to be executed under ONR Project Unit R2676 and \$5,381 to be executed through DARO.

**CHANGE SUMMARY EXPLANATION:**

(U) Funding: The net increase of \$13,363 thousand includes \$5,381 thousand executed by DARO and +\$7,982 thousand executed by ONR. The \$7,982 increase reflects a +\$8,000 thousand Congressional Add for Electro Optical effort and a reduction of -\$18 thousand for a Revised Economic Assumption. The net increase of \$1,972 thousand in FY 2000 reflects a DARO transfer of \$2,000 thousand and a reduction of -\$28 thousand for Non pay inflation.

(U) Schedule: Not Applicable.

(U) Technical: Not Applicable.

**(U) C. OTHER PROGRAM FUNDING SUMMARY**

| <u>Appn</u> | <u>FY 1998<br/>Budget</u> | <u>FY 1999<br/>Budget</u> | <u>FY 2000<br/>Estimate</u> | <u>FY 2001<br/>Estimate</u> | <u>FY 2002<br/>Estimate</u> | <u>FY 2003<br/>Estimate</u> | <u>FY 2004<br/>Estimate</u> | <u>FY 2005<br/>Estimate</u> | <u>To<br/>Complete</u> |
|-------------|---------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------|
|-------------|---------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------|

Related RDT&E

(U) F/A-18 SHARP (U) HISTAR

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**PROJECT NUMBER: R2476**

**PROGRAM ELEMENT TITLE: Airborne Reconnaissance  
Advanced Development (ARAD)**

**PROJECT TITLE: Framing Reconnaissance  
Camera**

(U) D. ACQUISITION STRATEGY: Leverages in-house (Navy RDT&E) efforts with commercial sources in the areas of advanced digital and sensor technology development.

(U) E. SCHEDULE PROFILE

FY 1998

FY 1999

FY 2000

TO COMPLETE

(U) Program Milestones

(U) Engineering Milestones

1Q/Begin Multi-Spec  
IR Sensor Dev

3Q/Begin  
Precision  
Strike Dev

(U) T&E Milestones

2Q01/Precision  
Strike Flight  
Demo  
3Q01/IR Camera  
Flight Test

(U) Contract Milestones

FY98 and prior effort were budgeted and executed under DARO PE 0305206D8Z

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DATE: February 1999

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305206N

PROJECT NUMBER: R2476

PROJECT TITLE: Framing Reconnaissance Camera

| <u>Cost Categories:</u>   | <u>Contract Method &amp; Type</u> | <u>Performing Activity &amp; Location</u> | <u>Total Prior Yrs Cost</u> | <u>FY 1999 Cost</u> | <u>FY 1999 Award Date</u> | <u>FY 2000 Cost</u> | <u>FY 2000 Award Date</u> | <u>Cost to Complete</u> | <u>Total Cost</u> | <u>Target Value of Contract</u> |
|---|-----------------------------------|---|-----------------------------|---------------------|---------------------------|---------------------|---------------------------|-------------------------|-------------------|---------------------------------|
| Production Engineering  | CPFF                              | TBD<br>Contractors                        | *                           | 3,953               | 1Q/99                     | 1,400               | 1Q/00                     | Cont                    | Cont              | Cont                            |
| Technical Support   | CPFF                              | TBD<br>Contractors                        | *                           | 1,277               | 1Q/99                     | 572                 | 1Q/00                     | Cont                    | Cont              | Cont                            |
| Production Engineering  | CPFF                              | TBD<br>Contractors                        | 0                           | 7,803               | 2Q/99                     | 0                   |                           | Cont                    | Cont              | Cont                            |
| <b>Subtotal Product Development</b>                             |                                   |   | <b>0*</b>                   | <b>13,259</b>       |                           | <b>1,972</b>        |                           | <b>Cont</b>             | <b>Cont</b>       | <b>Cont</b>                     |
| <b>Remarks:</b> * Funds executed as part of DARO PE# 0305206D8Z |                                   |   |                             |                     |                           |                     |                           |                         |                   |                                 |
| <b>Subtotal Support</b>   |                                   |   | <b>0</b>                    | <b>0</b>            |                           | <b>0</b>            |                           | <b>0</b>                | <b>0</b>          | <b>0</b>                        |

Remarks:

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EXHIBIT R-3, FY 2000 RDT&E,N COST ANALYSIS

DATE: February 1999

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305206N

PROJECT NUMBER: R2476  
PROJECT TITLE: Framing Reconnaissance Camera

| Cost Categories:  | Contract<br>Method<br>& Type | Performing<br>Activity &<br>Location | Total<br>Prior Yrs<br>Cost | FY 1999<br>Cost | FY 1999<br>Award<br>Date | FY 2000<br>Cost | FY 2000<br>Award<br>Date | Cost to<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
|---|------------------------------|--------------------------------------|----------------------------|-----------------|--------------------------|-----------------|--------------------------|---------------------|---------------|--------------------------------|
|   |                              |                                      |                            |                 |                          |                 |                          | 0                   | 0             | 0                              |
| Subtotal Test & Evaluation                              |                              |                                      | 0                          | 0               |                          | 0               |                          | 0                   | 0             | 0                              |
| Remarks:  |                              |                                      |                            |                 |                          |                 |                          |                     |               |                                |
|   |                              |                                      | 0                          | 0               |                          | 0               |                          | 0                   | 0             | 0                              |
| Subtotal Management                                     |                              |                                      | 0                          | 0               |                          | 0               |                          | 0                   | 0             | 0                              |
| Remarks:  |                              |                                      |                            |                 |                          |                 |                          |                     |               |                                |
| FY 1999 SBIR Assessment                                 |                              |                                      |                            | 330             |                          |                 |                          |                     | 330           |                                |
| Total Cost  |                              |                                      | 0*                         | 13,363          |                          | 1,972           |                          | Cont                | Cont          | Cont                           |
| FY98 and prior effort executed under DARO PE 0305206D8Z |                              |                                      |                            |                 |                          |                 |                          |                     |               |                                |